

IN THE ABSTRACT

Please amend the Abstract contained in the application as follows:

----ABSTRACT

An ~~In the~~ infrared radiation element ~~(A)~~, a ~~A~~ heat insulating layer 2, ~~which has~~ having sufficiently smaller thermal conductivity than a semiconductor substrate 4, is formed on a surface in the thickness direction of the semiconductor substrate, ~~1, and a~~ A heating layer 3, which is in the form of a lamina (plane) and has larger thermal conductivity and larger electrical conductivity than the heat insulating layer 2, is formed on the heat insulating layer, ~~2, and a~~ A pair of pads 4 for energization are formed on the heating layer 3. The semiconductor substrate 4 is made of a silicon substrate. The heat insulating layer 2 and the heating layer 3 are formed by porous silicon layers having different porosities from each other, and the heating layer 3 has smaller porosity than the heat insulating layer 2. By using the infrared radiation element ~~(A)~~ as an infrared radiation source of a gas sensor, it becomes possible to extend a life of the infrared radiation source.----